<u>**Listing of Claims:**</u>

1. (Currently Amended) A synchroniser for use in a receiver which receives signals, said synchroniser <u>including a digital signal processor, said</u> ~~comprising~~ <u>synchroniser configured to</u>:

    <u>provide</u> ~~means for providing~~ a digital control signal, said control signal defining a plurality of different levels;

    <u>control</u> ~~means for controlling~~ the level provided by successive ones of said control signals, successive ones of said control signal defining different values;

    <u>convert</u> ~~means for converting~~ said digital control signal into an analog control signal for controlling a mixing frequency; and

    <u>estimate</u> ~~means for estimating~~ the difference between the levels of successive ones of said analog control signal.

2. (Canceled)

3. (Currently Amended) The synchroniser of claim 1, wherein said providing ~~means~~, said controlling ~~means~~ and said estimating ~~means~~ are <u>performed</u> in the digital domain.

4. (Currently Amended) The synchroniser of claim 3, wherein said providing ~~means~~, said controlling ~~means~~ and said estimating ~~means~~ are provided in [[a]] <u>the</u> digital signal processor.

5. (Currently Amended) The synchroniser of claim 1, wherein said providing ~~means~~ ~~comprises~~ <u>is performed by</u> a digital corrector.

6. (Previously Presented) The synchroniser of claim 1, wherein a rough correction is provided by said control signal.

7. (Previously Presented) The synchroniser of claim 6, wherein a rough correction is provided in an analog domain.

8. (Previously Presented) The synchroniser of claim 6, wherein a finer correction is provided.

9. (Previously Presented) The synchroniser of claim 8, wherein said finer correction is provided in a digital domain.

10. (Currently Amended) The synchroniser of claim 1, wherein said ~~means for~~ estimating ~~comprises~~ is performed by an estimator ~~arranged~~ configured to determine that the difference between two successive levels has increased if a difference between the upper of said levels and an estimated level for an actual signal provides a signal at a higher level than a signal provided by a difference between a lower of said levels and an estimated level for the actual signal.

11. (Currently Amended) The synchroniser of claim 1, wherein said ~~means for~~ estimating ~~comprises~~ is performed by an estimator ~~arranged~~ configured to determine that the difference between two successive levels has increased if a difference between the upper of said levels and an estimated level for an actual signal provides a signal at a higher level than a signal provided by a difference between a lower of said levels and an estimated level for the actual signal.

12. (Currently Amended) The synchroniser of claim 1, wherein said ~~means for~~ estimating ~~comprises~~ is performed by an estimator ~~arranged~~ configured to determine that an actual signal has changed if a difference between the upper of said levels and an actual signal provides a signal at substantially the same level as a signal provided by a difference between a lower of said levels and the actual signal, said same level being different to a previous level for said actual signal.

13. (Previously Presented) The synchroniser of claim 1, wherein said synchroniser is arranged to at least one of acquire and track frequency error.

14. (Previously Presented) The synchroniser of claim 1, wherein said synchroniser is arranged to at least one of acquire and track timing error.

15. (Previously Presented) The receiver comprising the synchroniser as claimed in claim 1.

16. (Canceled)

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17. (Previously Presented) The synchroniser of claim 1, wherein said providing means, said controlling means and said estimating means are in the digital domain.

18. (Previously Presented) The synchroniser of claim 7, wherein a finer correction is provided.

19. (Previously Presented) The receiver of claim 15, further comprising:

      an antenna for receiving signals;

      a first bandpass filter for filtering out unwanted signals;

      a mixer for downconverting received signals to a baseband frequency;

      a second bandpass filter for removing unwanted signals falling outside the bandwith of said second bandpass filter;

      an analog to digital converter for converting signals received from said second bandpass filter from analog to digital form; and

      a digital to analog converter for converting the signals received from said digital signal processor from digital to analog form.

20. (Currently Amended) The receiver of claim 19, wherein said ~~synchroniser includes a~~ digital signal processor ~~comprising~~ <u>comprises</u>:

      a detector for measuring frequency errors and sending a digital word;

      a filter for filtering said digital word output by said detector;

      a step size estimator for estimating an actual step size of a frequency change provided by said digital to analog converter and providing said actual step size to analog correction; and

      a digital automatic frequency control unit for controlling division of correction between analog and digital parts, performing an accurate correction so that a zero or close to zero error is achieved and compensating for the effect of an analog control for which a step size is estimated while a control word is changed.

21. (Previously Presented) A method for providing synchronization in a receiver, comprising the steps of:

providing a digital control signal, said control signal defining a plurality of different levels;

controlling the level provided by successive ones of said control signals, successive ones of said control signal defining different values;

converting the digital control signal into an analog control signal for controlling a mixing frequency; and

estimating the difference between the levels of successive ones of said analog control signal.

22 (New) A computer-readable medium for providing synchronization in a receiver, the computer-readable medium being encoded with a computer program, the computer program comprising:

program code for providing a digital control signal, said control signal defining a plurality of different levels;

program code for controlling the level provided by successive ones of said control signals, successive ones of said control signal defining different values;

program code for converting the digital control signal into an analog control signal for controlling a mixing frequency; and

program code for estimating the difference between the levels of successive ones of said analog control signal.

23 (New) A synchronizer for use in a receiver which receives signals, said synchronizer comprising:

means for providing a digital control signal, said control signal defining a plurality of different levels;

means for controlling the level provided by successive ones of said control signals, successive ones of said control signal defining different values;

means for converting said digital control signal into an analog control signal for controlling a mixing frequency; and

means for estimating the difference between the levels of successive ones of said analog control signal.